

Kindly amend claims 1, 3-5, 7-12 and 17-20 as follows.

92 1. (Amended) An organic thin film switching element comprising:
an insulative film;
an organic semiconductor layer made of an organic semiconductor and mounded on the
insulative film;
a pair of opposing gate electrodes sandwiching the insulative film and the organic
semiconductor layer; and
an intermediate electrode disposed within the organic semiconductor layer.

3. (Amended) An organic thin film switching element according to claim 1, wherein
the organic semiconductor has a hole transport property.

93 4. (Amended) An organic thin film switching element according to claim 1, wherein
the organic semiconductor has an electron transport property.

5. (Amended) An organic thin film switching element according to claim 1, wherein
the organic semiconductor has a hole and electron transport property.

94 7. (Amended) An organic thin film switching element according to claim 1, wherein
the intermediate electrode is made of a material having a work function to facilitate movements
of holes between the electrodes and the organic semiconductor layer.

8. (Amended) An organic thin film switching element according to claim 7, wherein the intermediate electrode comprises a laminate including a first layer made of a material having a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function lower than that of the first layer.

9. (Amended) An organic thin film switching element according to claim 1, wherein the intermediate electrode is made of a material having a work function to facilitate movements of electrons between the electrodes and the organic semiconductor layer.

10. (Amended) An organic thin film switching element according to claim 9, wherein the intermediate electrode of the organic thin film switching element comprises a laminate including a first layer made of a material having a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function higher than that of the first layer.

11. (Amended) An organic electroluminescence element display device having a display array formed of a plurality of light emitting sections, comprising:

a substrate having a plurality of first display electrodes formed on a surface in correspondence to the light emitting sections;

an organic material layer formed on each of the first display electrodes and including at least one organic electroluminescence material layer capable of emitting light by injecting electrons or holes thereinto;

a second display electrode formed in common on the organic material layer; and

an organic thin film switching element formed on the substrate and connected to at least one of the first and second display electrodes, the organic thin film switching element including:

a insulative film;

an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film;

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cont a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer; and

an intermediate electrode disposed within the organic semiconductor layer.

12. (Amended) An organic electroluminescence element display device according to claim 11, wherein the organic semiconductor layer is formed of a portion of the organic material layer.

95 17. (Amended) An organic electroluminescence element display device according to claim 11, wherein the intermediate electrode is made of a material having a work function to facilitate movements of holes between the electrodes and the organic semiconductor layer.

18. (Amended) An organic electroluminescence element display device according to claim 17, wherein the intermediate electrode of the organic thin film switching element comprises a laminate including a first layer made of a material having a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function lower than that of the first layer.

19. (Amended) An organic electroluminescence element display device according to claim 11, wherein the intermediate electrode is made of a material having a work function to facilitate movements of electrons between the electrodes and the organic semiconductor layer.

20. (Amended) An organic electroluminescence element display device according to claim 19, wherein the intermediate electrode of the organic thin film switching element comprises a laminate including a first layer made of a material having a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function higher than that of the first layer.

Kindly add the following new claims 21-37.

--21. An organic thin film switching element comprising:
an insulative film;
an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film;

a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and

gate means for applying an electric field to the organic semiconductor layer between the intermediate electrodes.

22. An organic thin film switching element according to claim 21, wherein the organic semiconductor has a hole transport property.

23. An organic thin film switching element according to claim 21, wherein the organic semiconductor has an electron transport property.

24. An organic thin film switching element according to claim 21, wherein the organic semiconductor has a hole and electron transport property.

25. An organic thin film switching element according to claim 21, wherein each of the intermediate electrodes is made of a material having a work function to facilitate movements of holes between the electrodes and the organic semiconductor layer.

26. An organic thin film switching element according to claim 25, wherein each of the intermediate electrodes comprises a laminate including a first layer made of a material having

a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function lower than that of the first layer.

27. An organic thin film switching element according to claim 21, wherein each of the intermediate electrodes is made of a material having a work function to facilitate movements of electrons between the electrodes and the organic semiconductor layer.

28. An organic thin film switching element according to claim 27, wherein each of the intermediate electrodes comprises a laminate including a first layer made of a material having a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function higher than that of the first layer.

29. An organic electroluminescence element display device having a display array formed of a plurality of light emitting sections, comprising:

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a substrate having a plurality of first display electrodes formed on a surface in correspondence to the light emitting sections;

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an organic material layer formed on each of the first display electrodes and including at least one organic electroluminescence material layer capable of emitting light by injecting electrons or holes thereinto;

a second display electrode formed in common on the organic material layer; and

an organic thin film switching element formed on the substrate and connected to at least one of the first and second display electrodes, the organic thin film switching element including:

an insulative film;

an organic semiconductor layer made of an organic semiconductor and mounded on the insulative film;

a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other; and

gate means for applying an electric field to the organic semiconductor layer between the intermediate electrodes.

30. An organic electroluminescence element display device according to claim 29, wherein the organic semiconductor layer is formed of a portion of the organic material layer.

31. An organic electroluminescence element display device according to claim 29, wherein the light emitting sections are arranged in matrix.

32. An organic electroluminescence element display device according to claim 29, further comprising a capacitor formed on the substrate, and connected to at least one of the first and second display electrodes and the organic thin film switching element.

33. An organic electroluminescence element display device according to claim 29, wherein the substrate and the first display electrode are transparent.

34. An organic electroluminescence element display device according to claim 29, wherein each of the intermediate electrodes is made of a material having a work function to facilitate movements of holes between the electrodes and the organic semiconductor layer.

35. An organic electroluminescence element display device according to claim 34, wherein each of the intermediate electrodes comprises a laminate including a first layer made of a material having a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function lower than that of the first layer.

36. An organic electroluminescence element display device according to claim 29, wherein each of the intermediate electrodes is made of a material having a work function to facilitate movements of electrons between the electrodes and the organic semiconductor layer.

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37. An organic electroluminescence element display device according to claim 36, wherein each of the intermediate electrodes comprises a laminate including a first layer made of a material having a work function substantially equal to that of the organic semiconductor layer, and a second layer made of a material having a work function higher than that of the first layer.--
